

## **April 2015 Regional Climate Summary**

### **For the San Francisco Bay Area and Monterey Bay Area**

**April 2015 was an uneventful weather month.** A few precipitation events produced moderate amounts of rainfall. Although some locations accumulated more than their average April precipitation, the majority of climate stations ended the month with rain totals below their historical average. Temperatures remained near normal for most of April, but a few warm events helped push average monthly temperatures a bit above normal.

April started off dry and relatively cool. Temperatures dropped to near freezing in the coldest valleys during a few nights early in the month.

Mostly clear skies during the early morning hours of Saturday April 4 allowed for excellent viewing of the total lunar eclipse.



*Photo of the lunar eclipse taken from the National Weather Service Office in Monterey at approximately 5 am PDT on the morning of April 4, 2015.*

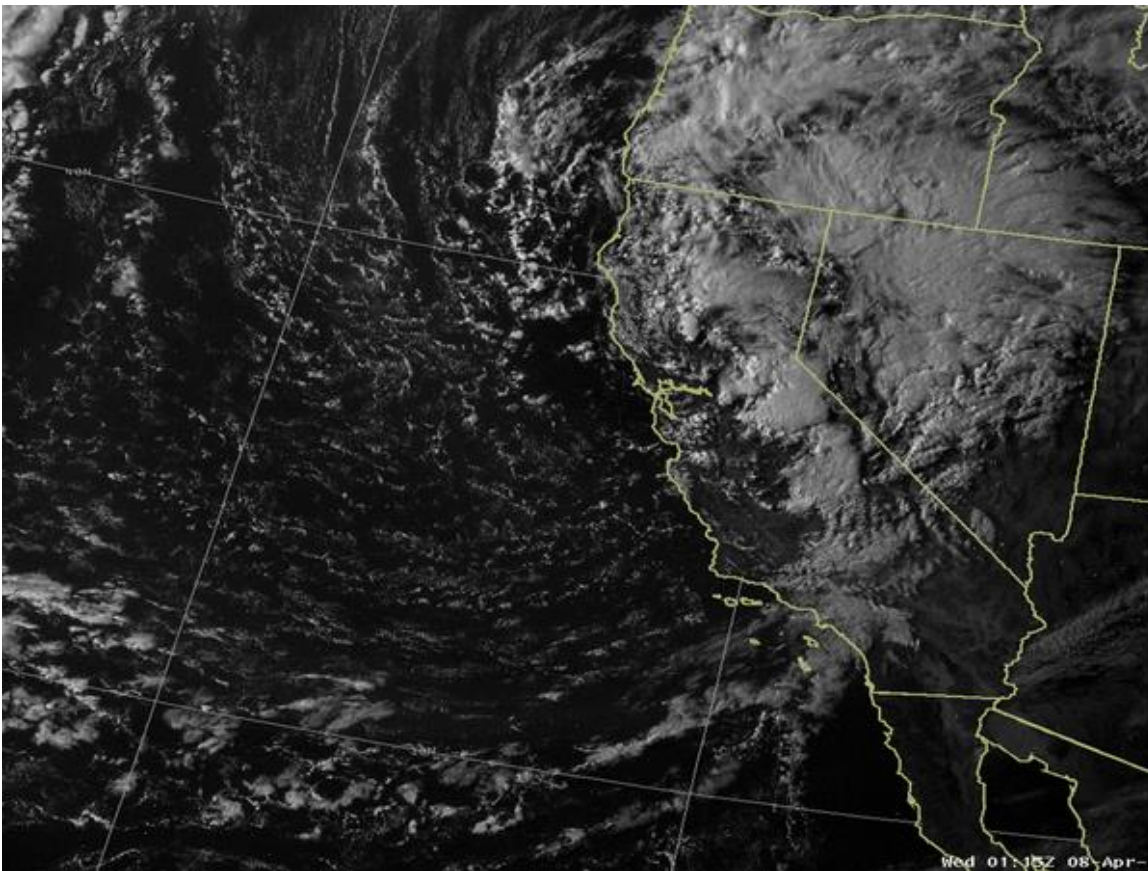
A weak weather system moved ashore during the morning of Sunday, April 5, producing light amounts of rain. Rainfall amounts at lower elevations were less than a quarter of an inch. Up to a third of an inch fell at some higher elevation locations in the San Francisco Bay Area.

A more robust weather system moved through the area on April 6 and 7:

- Monday, April 6, 8:30 pm: Rain begins in the North Bay as a strong cold front approaches.
- Tuesday, April 7, late morning: Several lightning strikes detected offshore.
- Early morning hours of Tuesday: Several higher elevation locations report winds gusts of more than 40 mph.
- Late afternoon Tuesday: Small hail reported in Pleasant Hill and Sonoma.

Rainfall totals with the April 6-7 storm system were as follows:

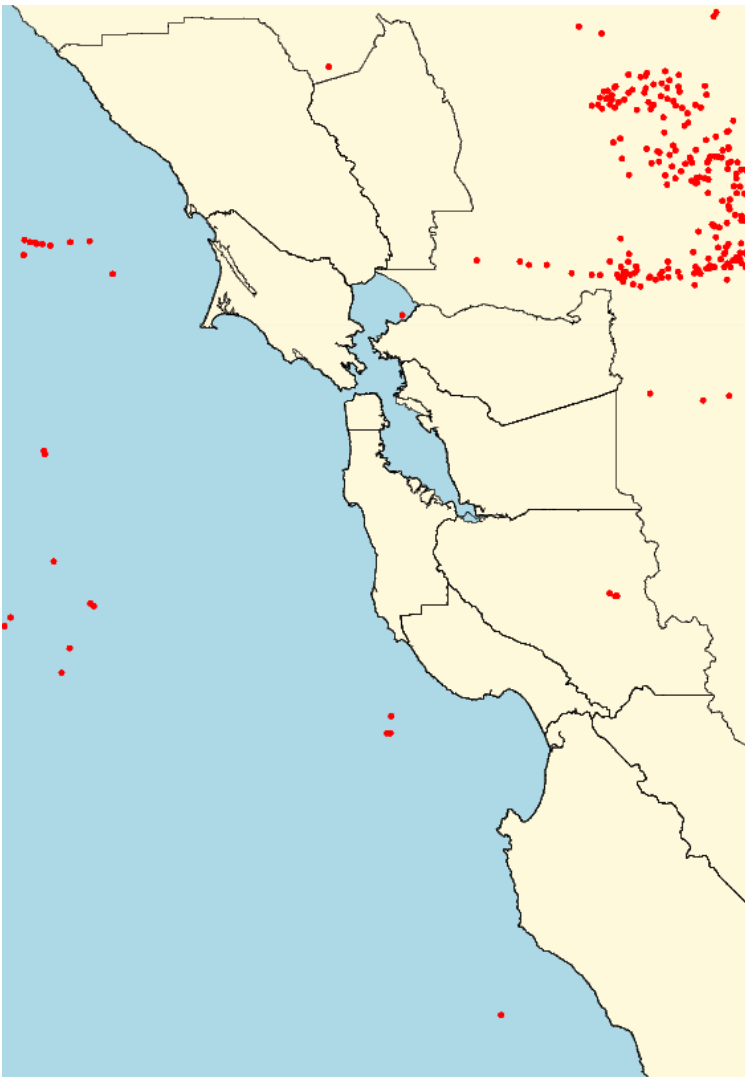
- Lower Elevations: Generally from 0.25-0.75" except up to 1.5" in the North Bay Valleys and locally along the Santa Cruz and Monterey County Coasts.
- Higher Elevations: from 0.5-1.75" except locally up to 2 inches in the Santa Cruz Mountains.



***Visible satellite image taken during the early evening of Tuesday, April 7, showing a cool weather system pushing across Northern and Central California.***



***Rainbow over San Francisco during the early evening of April 7, 2015. Photo: NBC Bay Area***



***Locations of lightning strikes on April 6 and 7. Most lightning occurred offshore or over the Central Valley.***

Only one other widespread rainfall event occurred during April. A fast-moving weather system spread light to moderate rain across the region from the evening of Friday, April 24 through the pre-dawn hours of Saturday, April 25. Rainfall amounts at lower elevations generally ranged from a quarter to a half inch. Higher elevations picked up between 0.5 and 1.5" except local amounts of more than 2 inches in the Santa Lucia Mountains of Monterey County.

Rain totals for the month ranged from less than 40 percent of normal at Half Moon Bay and Hollister to more than 130 percent of normal in the southern Napa Valley. But most locations ended the month with rain totals that were relatively close to normal.

### **April Regional Precipitation Summary**

<b>Location</b>	<b>April Rainfall</b>	<b>Normal Apr Rainfall</b>	<b>Percent of Normal</b>
<b>North Bay</b>			
Angwin	1.60	2.34	68
Calistoga	2.15	2.39	90
Cloverdale	2.59	2.56	101
Kentfield	2.19	2.49	88
Muir Woods	2.49	2.24	111
Napa	2.12	1.59	133
Napa Airport	1.43	1.04	138
Occidental	2.50	3.58	70
Petaluma Airport	1.27	1.63	78
San Rafael	1.63	1.91	85
Sonoma County Airport	1.50	2.09	72
Sonoma	0.96	1.78	54
<b>San Francisco Peninsula</b>			
Half Moon Bay	0.75	1.90	39
San Francisco Airport	1.28	1.29	99
San Francisco Downtown	1.30	1.46	89
<b>East Bay</b>			
Antioch	0.62	0.78	79
Berkeley	1.44	1.66	87
Concord	1.23	1.12	110
Concord Airport	0.87	1.12	78
Fremont	1.10	1.16	95
Hayward Airport	1.02	1.24	82
Livermore	0.78	1.01	77
Livermore Airport	0.93	1.00	93
Martinez	1.01	1.21	83
Mount Diablo Junction	1.32	1.63	81
Newark	1.07	1.02	105
Oakland	1.33	1.42	94
Oakland Airport	1.08	1.34	81
Richmond	1.37	1.47	93

<b>South Bay &amp; Santa Cruz County</b>	<b>April Rainfall</b>	<b>Normal Apr Rainfall</b>	<b>Percent of Normal</b>
Ben Lomond	2.82	3.24	87
Los Gatos	1.44	1.40	103
Moffett Federal Airfield	0.88	0.98	90
Mount Hamilton	1.52	1.99	76
San Jose	0.88	1.18	75
Santa Cruz	1.98	1.97	101
Watsonville	1.17	1.69	69
<b>Monterey and San Benito Counties</b>			
Big Sur Station	3.03	3.00	101
Carmel Valley	1.09	1.38	79
Hollister	0.36	0.97	37
King City	0.75	0.78	96
Monterey	0.95	1.49	64
Monterey Airport	0.89	1.12	79
Pinnacles National Park	1.24	1.19	104
Salinas	0.68	1.03	66
Salinas Airport	0.64	0.93	69

Temperatures during most April days were close to normal. A few brief warm-ups during the second half of the month resulted in a smattering of daily high temperature records on April 17, 27, and 30. April 30<sup>th</sup> was the warmest day of the month across the entire region, but only one daily record high was set that day (at King City with a high of 98).

Average temperatures for April were slightly warmer than normal at nearly all climate stations. More specifically, average daytime high temperatures were above normal at nearly all climate stations, while average nighttime low temperatures were a mixed bag of slightly warmer and slightly cooler than normal.

### **April Regional Temperature Summary**

<b>Location</b>	<b>Average High</b>	<b>Normal High</b>	<b>Departure from Normal</b>	<b>Average Low</b>	<b>Normal Low</b>	<b>Departure from Normal</b>
<b>North Bay</b>						
Angwin	69.3	66.6	2.7	43.2	42.8	0.4
Calistoga	73.0	72.4	0.6	44.9	41.9	3.0
Cloverdale	77.8	72.6	5.2	45.1	45.6	-0.5
Kentfield	71.1	68.4	2.7	46.3	46.0	0.3
Napa	74.3	71.2	3.1	44.7	45.2	-0.5
Napa Airport	69.1	68.1	1.0	41.1	41.5	-0.4
Occidental	67.6	66.1	1.5	44.5	45.4	-0.9
Petaluma Airport	69.7	68.7	1.0	43.2	43.8	-0.6
Saint Helena	75.2	72.0	3.2	47.3	45.0	2.3
San Rafael	70.9	66.5	4.4	47.0	47.3	-0.3
Sonoma County Airport	72.7	68.8	3.9	43.4	42.4	1.0
Sonoma	71.3	69.6	1.7	43.8	43.3	0.5

<b>San Francisco Peninsula</b>	<b>Average High</b>	<b>Normal High</b>	<b>Departure from Normal</b>	<b>Average Low</b>	<b>Normal Low</b>	<b>Departure from Normal</b>
Half Moon Bay	62.8	60.5	2.3	44.2	43.3	0.9
Palo Alto	73.3	69.7	3.6	45.3	44.7	0.6
Redwood City	70.3	69.0	1.3	47.2	46.3	0.9
San Francisco Airport	66.8	64.7	2.1	50.5	49.1	1.4
San Francisco Downtown	63.7	63.1	0.6	50.3	49.2	1.1
<b>East Bay</b>						
Antioch	75.1	71.4	3.7	50.5	48.2	2.3
Berkeley	68.7	66.8	1.9	46.9	46.5	0.4
Concord	73.7	71.5	2.2	49.6	48.9	0.7
Concord Airport	74.2	69.8	4.4	48.1	47.4	0.7
Fremont	70.4	69.0	1.4	47.7	48.5	-0.8
Hayward Airport	68.2	66.1	2.1	48.8	49.3	-0.5
Livermore	73.3	70.7	2.6	45.5	46.0	-0.5
Livermore Airport	74.4	68.6	5.8	46.7	44.7	2.0
Martinez	73.6	71.9	1.7	45.2	42.7	2.5
Mount Diablo Junction	64.4	64.4	0.0	46.2	43.7	2.5
Newark	67.6	67.4	0.2	49.7	50.1	-0.4
Oakland	69.4	66.3	3.1	50.2	50.0	0.2
Oakland Airport	67.1	66.5	0.6	48.5	48.3	0.2
Richmond	70.0	66.5	3.5	49.8	49.2	0.6
<b>South Bay and Santa Cruz County</b>						
Moffett Federal Airfield	70.1	68.7	1.4	49.2	49.4	-0.2
Mount Hamilton	57.2	54.9	2.3	43.0	40.8	2.2
San Jose	71.0	69.3	1.7	48.5	48.6	-0.1
Santa Cruz	73.5	69.5	4.0	45.8	46.0	-0.2
Watsonville	68.8	67.6	1.2	45.9	45.5	0.4
Watsonville Airport	70.1	66.5	3.6	46.1	44.5	1.6
<b>Monterey and San Benito Counties</b>						
Big Sur Station	68.9	68.3	0.6	44.1	43.5	0.6
Carmel Valley	69.7	69.4	0.3	42.1	43.4	-1.3
Hollister	71.4	70.3	1.1	44.4	44.3	0.1
King City	75.4	74.5	0.9	43.1	43.5	-0.4
Monterey	64.1	62.1	2.0	46.7	46.2	0.5
Monterey Airport	63.6	61.4	2.2	46.8	46.9	-0.1
Pinnacles National Park	75.8	71.8	4.0	39.7	39.1	0.6
Salinas	68.0	66.6	1.4	44.0	44.6	-0.6
Salinas Airport	69.9	67.1	2.8	48.3	46.3	2.0

<b>Daily High Temperature Records for April 2015</b>			
<b>Date</b>	<b>Location</b>	<b>Record Max Temp</b>	<b>Previous Record and Year</b>
4/17	Salinas	81 (tie)	81 in 1999
4/17	Santa Cruz	86	84 in 1938
4/27	Oakland Museum	82	81 in 2008
4/30	King City	98	97 in 2014



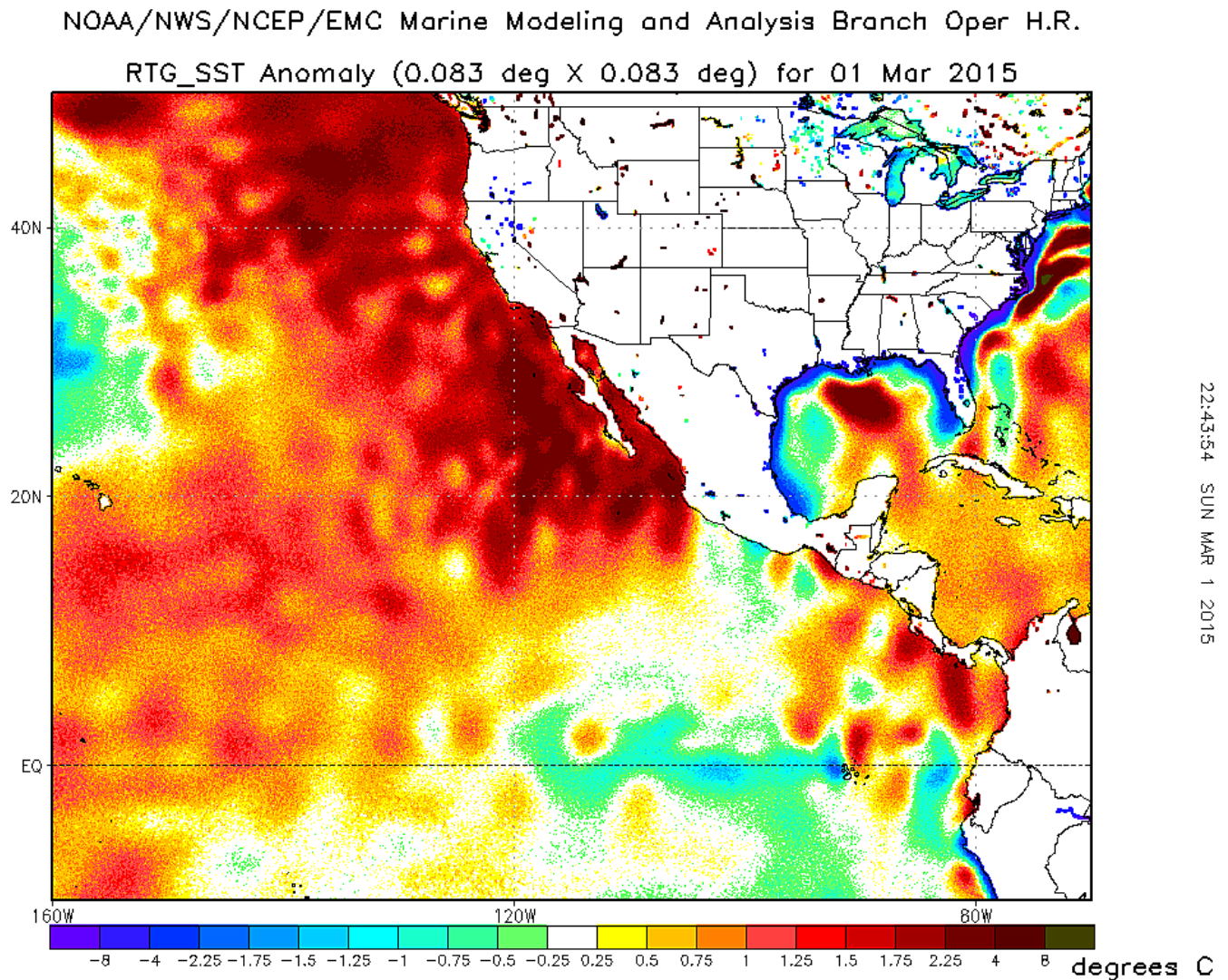
### Miscellaneous April Climate Information

Monthly Ranks for Downtown San Francisco		
Average High Temperature	63.7 deg	43 <sup>rd</sup> warmest April out of 141 years
Average Low Temperature	50.3 deg	44 <sup>th</sup> warmest April out of 141 years
Average Mean Temperature	57.0 deg	41 <sup>st</sup> warmest April out of 141 years
Precipitation	1.30 in	68 <sup>th</sup> wettest April out of 166 years

Monthly Extremes for Select Locations			
Location	Max Temp: Warmest Day(s)	Min Temp: Coolest Day(s)	Precipitation: Wettest Day(s)
Sonoma County Airport	4/30	4/06	4/07
	91 degrees	35 degrees	0.75 inches
San Francisco	4/30	4/6	4/07
	84 degrees	47 degrees	0.69 inches
Livermore Airport	4/30	4/03	4/07
	90 degrees	38 degrees	0.50 inches
San Jose	4/30	4/04, 4/06	4/07
	88 degrees	41 degrees	0.55 inches
Salinas Airport	4/30	4/02, 4/03, 4/06	4/07
	92 degrees	42 degrees	0.34 inches

## Sea Surface Temperatures Return to Normal

Water temperatures along the Northern and Central California Coast warmed rapidly during July 2014 and then remained warmer-than-normal through early Spring of 2015. Upwelling along the California Coast from mid-March through early April resulted in a rapid decline in sea surface water temperatures in the near-shore waters. By early April, sea surface temperatures had returned to normal and by mid-April water temperatures had dipped into the upper 40s along portions of the coast.

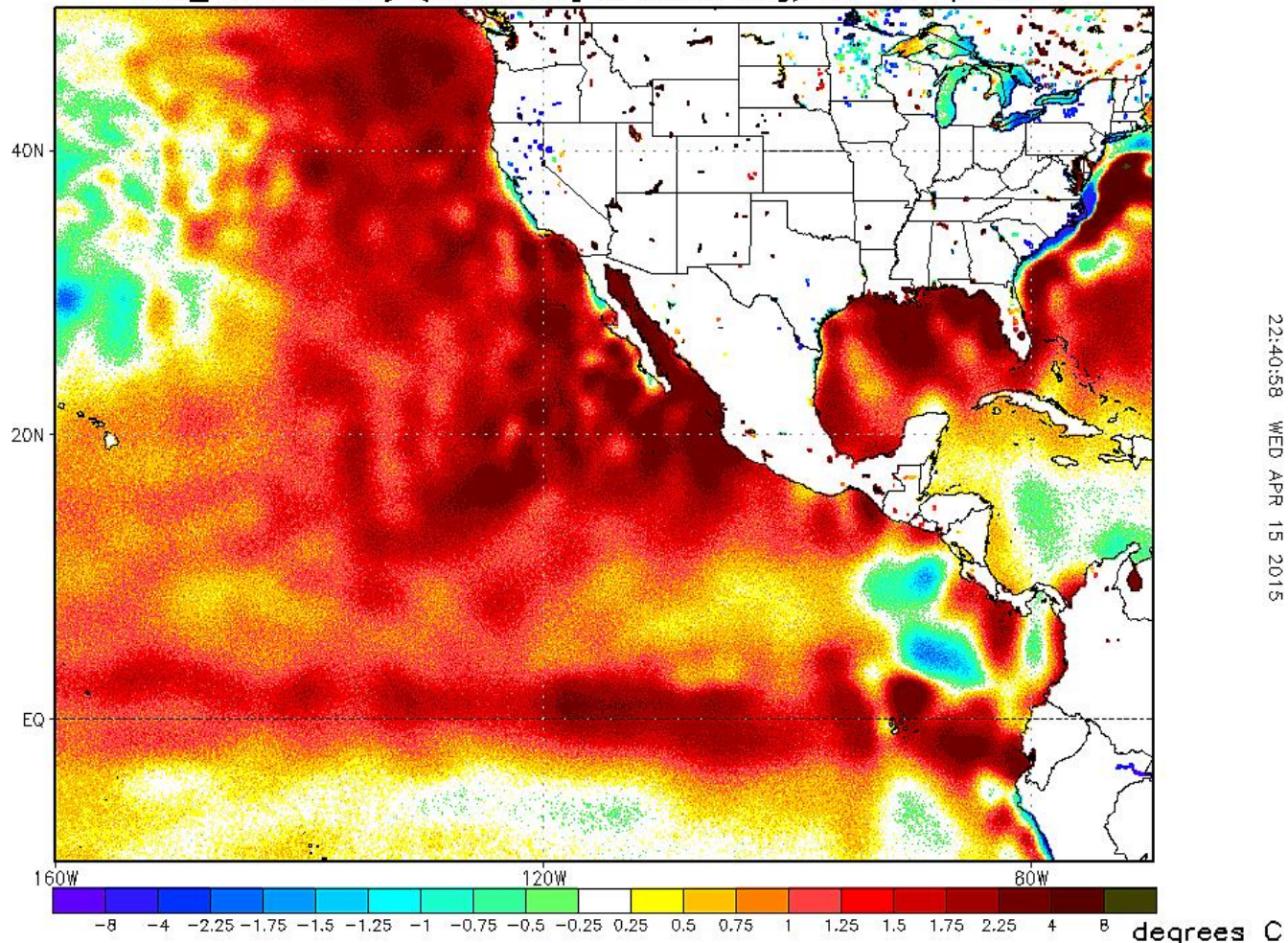


***Sea Surface Temperature Anomalies (degrees C) across the Northeast Pacific as of March 1, 2015.  
Note the large area of positive SST anomalies off the west coast of North America, including along the California Coast.***



NOAA/NWS/NCEP/EMC Marine Modeling and Analysis Branch Oper H.R.

RTG\_SST Anomaly (0.083 deg X 0.083 deg) for 15 Apr 2015



***Sea Surface Temperature Anomalies (degrees C) as of April 15. While water temperatures across much of the northeastern Pacific remained well above normal, note how water temperatures close to the California Coast from Point Arena to Point Conception were now cooler-than-normal.***

Note: This climatological data is preliminary. For official certified climatological data please contact the National Climatic Data Center at 828-271-4800 or <http://www.ncdc.noaa.gov>. Official values as determined at the above web site may take several months for authentication and publication.